3R - 58

REPORTS

DATE:

8/18/1995

ROBERT L. BAYLESS
P. O. BOX 168
FARMINGTON, NM 87499

FAX NO.
(505) 326-6911

OFFICE NO.
(505) 326-2659

August 18, 1995

Mr. Roger Anderson
Environmental Bureau Chief
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Final Report
SFPRR No. 50 Oil Leak
Miguel Creek Field
McKinley County, New Mexico

Dear Mr. Anderson:

Bayless gave notice of an oil spill at the SFPRR No. 50, located 990' FSL and 990' FWL, Section 21, T 16 N, R 6 W, McKinley County, New Mexico, on July 10, 1995. Prior to and since that time, we have worked to mitigate damage resulting from this spill, as discussed more fully below. A chronological report of these activities is enclosed.

The spill from the SFPRR No. 50 consisted of a leak of 5 - 10 barrels of oil from the wellhead. This oil soaked or flowed into a subterranean gully which flows into Chico Arroyo (Miguel Creek) approximately 40' away. Due to the terrain and the steep 15' embankment of the creek, it is not possible to see that an oil leak at the wellhead is affecting the creek. Obviously, a 5 BO leak at the wellhead is treated differently, both from an operational and a regulatory stand point, than a 5 BO leak into a creek.

The Miguel Creek Oil Field is very remote, especially from oil field services and environmental services. Access is by 18 miles of dirt road north from San Mateo, New Mexico. The services are located in Farmington. After confirming that a leak into the creek had occurred and that it was not moving (the creek is ephemeral), we spent time determining how to clean it up and mobilizing a clean up crew. This had to be done immediately due to the travel time involved. Bayless then reported the matter to the OCD and was able to present a clean up proposal that was already mobilized.

At the request of Denny Foust of the OCD, water samples were collected from the creek 500' upstream and 300' downstream from the spill. The samples were analyzed for aromatic volatile organics, polynuclear aromatic hydrocarbons and 23 metals. The samples were collected on July 20, 1995. The analysis of these samples is attached. The use of Sphagsorb and the flushing of the creek were apparently totally effective in cleaning up the oil spill.

We believe we have been prudent and thorough in the mitigation of this spill. If there is any additional information which you require concerning this matter, please do not hesitate to call me.

Sincerely,

Tom McCarthy
Petroleum Engineer

cc: Denny Foust
Oil Conservation Division
Aztec, New Mexico

Oil Spill Chronology of Events

MIGUEL CREEK

July 7, 1995

Tucker Bayless received call from rancher at 4 pm advising that a well may be leaking into Miguel Creek.

July 8, 1995

Tom McCarthy and Dave Ball (both Bayless employees) went to Miguel Creek. Walked creek from about SFPRR No. 15 to SFPRR No. 33 and from road crossing between B and C Battery to fence. Found SFPRR No. 50 leaking from "cavern" at creek level into creek. The creek is not visible from the wellhead area. Although there was a wellhead leak, no apparent conduit was visible from the wellhead area to the creek. The leak got to the creek through underground gullies. Estimated 5-10 BO leaked into the creek. Started pumping SFPRR No. 27 to lower fluid levels.

July 10, 1995

Studied cleanup alternatives for oil spilled in watercourses in remote areas. Contacted Onsite Technologies (Bob Crabb). Mobilized crew for 7/11/95 for cleanup. Reported spill to Ernie Bush at OCD.

July 11, 1995

Tom McCarthy, Dave Ball, Denny Foust(NMOCD) and John Little (Onsite Technologies) went to SFPRR No. 50 location and walked creek to fence. Spread 49 bags of Sphagsorb (absorbent) on oil in creek. Kevin McCord (a Bayless employee) called Nina Wells at NMED and EPA National Response Center. Started producing SFPRR No. 50.

July 12, 1995

John Little (Onsite) spread 108 bags of Sphagsorb on oil in creek. Mike Otis and Holgate roustabouts erected dam and Sphagsorb booms near fence at lower end of spill.

July 13, 1995

Dave Ball and Denny Foust put SFPRR No. 50 on pump to lower fluid levels. Built higher dam and installed more booms at the request of Denny Foust. Attempted to flush oil-Sphagsorb from creek using SFPRR No. 51 flowline and injection well at B Battery.

July 13, 1995 (cont.)

Excavated around SFPRR No. 50. Removed oily soil from creek area and put near SFPRR No. 50. Set up area to remediate soil on location. Oil leaching from vegetation back into water in creek.

July 14, 1995

Spread 50 additional bags of Sphagsorb on oil in creek. Could not flush creek with SFPRR No. 51 - B Battery water well. Sent pipe from Farmington to plumb into SFPRR No. 57 (water well for C Battery).

July 15, 1995

Flushing oil-Sphagsorb from creek down to booms to catch and remove using water from SFPRR No. 57. Discovered oil leak in gully that enters creek. Oil coming from SFPRR No. 80 water injection line. Gully is 2 to 12 feet wide and 5 to 15 feet deep. It goes underground in places. This leak was plugged off. Kevin McCord reported the spill to Denny Foust (NMOCD). This spill made it to the creek but in amounts too small to measure. It resulted in oil stained dirt, largely in a hidden and unaccessible area.

July 16, 1995

Kevin McCord, Dave Ball, and Denny Foust went to Miguel Creek and viewed spill from SFPRR No. 80. They decided that any oil that did make it to the creek was part of and was included in volumes already reported for the SFPRR No. 50 spill. A heavy rain started. We suspect a heavy rain this night raised the creek level 3 - 5 feet, washing away the dam and booms at the lower and of the spill. It also washed all the Sphagsorb in the creek away.

July 18, 1995

Stopped flowing flush water into creek from SFPRR No. 57. Another heavy rain flushed the creek again.

July 20, 1995

Kevin McCord and Denny Foust went to Miguel Creek. Water samples were collected from a point 500 feet upstream of the spill and 300 feet downstream from where the dam was constructed.

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Tom McCarthy*	Date:	7/24/95
Company:	*Robert L Bayless Oil*	*COC No.:*	*3146*
Address:	*368 Highway 170*	*Sample No.*	*7418*
City, State:	*Farmington, NM 87401*	*Job No.*	~~*2-1000*~~ *4-1221*

Project Name:	***Approx 500' upstream of origin of spill***				
Project Location:	***#1***				
Sampled by:	KHM	Date:	7/20/95	Time:	10:15
Analyzed by:	DC/GB	Date:	7/21/95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 *ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG
Date: 7/24/95

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AROMATIC VOLATILE ORGANICS

Attn:	*Tom McCarthy*	Date:	7/24/95
Company:	*Robert L Bayless Oil*	*COC No.:*	*3146*
Address:	*368 Highway 170*	*Sample No.*	*7419*
City, State:	*Farmington, NM 87401*	*Job No.*	*2-1000* 4-1221

Project Name:	***Approx 300' downstream of fenceline (dam location)***				
Project Location:	***#2***				
Sampled by:	KHM	Date:	7/20/95	Time:	11:15
Analyzed by:	DC/GB	Date:	7/21/95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DAS
Date: 7/24/95

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QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 7/21/95

Internal QC No.: 0419-STD
Surrogate QC No.: 0420-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes In Blank	<0.2 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	20	1	15%
Toluene	ppb	20	20	1	15%
Ethylbenzene	ppb	20	19	4	15%
m,p-Xylene	ppb	40	40	0	15%
o-Xylene	ppb	20	19	4	15%

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	124	121	(39-150)	2	20%
Toluene	121	117	(46-148)	2	20%
Ethylbenzene	118	114	(32-160)	2	20%
m,p-Xylene	123	118	(35-145)	3	20%
o-Xylene	113	109	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
7418-3146	101		

S1: Flourobenzene

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POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Tom McCarthy*	Date:	4-Aug-95
Company:	*Robert L Bayless Oil*	*Lab ID:*	*3146*
Address:	*368 Highway 170*	*Sample ID:*	*7418*
City, State:	*Farmington, NM 87401*	*Job No.*	~~*2-1000*~~ 4-1221

Project Name:	***Approx 500' Upstream of Origin of Spill***				
Project Location:	***#1***				
Sampled by:	KM	Date:	20-Jul-95	Time:	10:15
Analyzed by:	***ILFC***	Date:	31-Jul-95		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Acenaphthene	*<1*	*1*
Acenaphthylene	*<1*	*1*
Benzo (a) anthracene	*<1*	*1*
Benzo (a) pyrene	*<1*	*1*
Pyrene	*<1*	*1*
Benzo (b) fluoranthene	*<1*	*1*
Benzo (ghi) perylene	*<5*	*5*
Benzo (k) flouranthene	*<1*	*1*
Chrysene	*<1*	*1*
Dibenzo (a,h) anthrace	*<5*	*5*
Flouranthene	*<1*	*1*
Fluorene	*<1*	*1*
Indeno (1,2,3-cd) pyre	*<5*	*5*
Naphthalene	*<1*	*1*
Phenanthrene	*<1*	*1*

Method - *SW-846 EPA Method 8270 Semivolatile Organics by GC/MS*

Approved by: Jack
Date: 8/4/95

OFF: (505) 325-8786

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LAB: (505) 325-5667

POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Tom McCarthy*	Date:	4-Aug-95
Company:	*Robert L Bayless Oil*	*Lab ID:*	*3146*
Address:	*368 Highway 170*	*Sample ID:*	*7419*
City, State:	*Farmington, NM 87401*	*Job No.*	~~*2-1000*~~ *4-1221*

Project Name:	***Approx. 300' Downstream of Fenceline (Dam Location)***				
Project Location:	***#2***				
Sampled by:	KM	Date:	20-Jul-95	Time:	11:15
Analyzed by:	***ILFC***	Date:	31-Jul-95		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Acenaphthene	*< 1*	*1*
Acenaphthylene	*< 1*	*1*
Benzo (a) anthracene	*< 1*	*1*
Benzo (a) pyrene	*< 1*	*1*
Pyrene	*< 1*	*1*
Benzo (b) fluoranthene	*< 1*	*1*
Benzo (ghi) perylene	*< 5*	*5*
Benzo (k) flouranthene	*< 1*	*1*
Chrysene	*< 1*	*1*
Dibenzo (a,h) anthrace	*< 5*	*5*
Flouranthene	*< 1*	*1*
Fluorene	*< 1*	*1*
Indeno (1,2,3-cd) pyre	*< 5*	*5*
Naphthalene	*< 1*	*1*
Phenanthrene	*< 1*	*1*

Method - *SW-846 EPA Method 8270 Semivolatile Organics by GC/MS*

Approved by: Da G
Date: 8/4/95

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8100

Date Analyzed: 31-Jul-95 *Analyzed by:* ILFC

	Method Blank		Calibration Check	
Component	**Measured Concentration ug/L**		**% Diff.**	
Acenaphthene	<1		0%	
Acenaphthylene	<1		1%	
Benzo (a) anthracene	<1		1%	
Benzo (a) pyrene	<1		0%	
Pyrene	<1		5%	
Benzo (b) fluoranthene	<1		4%	
Benzo (ghi) perylene	<5		5%	
Benzo (k) flouranthene	<1		0%	
Chrysene	<1		1%	
Dibenzo (a,h) anthrace	<5		0%	
Flouranthene	<1		1%	
Fluorene	<1		3%	
Indeno (1,2,3-cd) pyre	<5		2%	
Naphthalene	<1		3%	
Phenanthrene	<1		0%	

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	%RSD
Acenaphthene	78%	83%	4
Pyrene	100%	100%	0

NR: *Not Reported*

Surrogate Recoveries

Sample #	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
10138	81%	84%	115%

CORE LABORATORIES

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A N A L Y T I C A L R E P O R T

Job Number: 952052
Prepared For:

ONSITE TECHNOLOGIES LIMITED
DAVE COX
657 W. MAPLE
FARMINGTON, NM 87401

Date: 08/04/95

Signature

Date: 8/7/95

Name: Chip Meador

Title: Regional Manager

CORE LABORATORIES
1733 NORTH PADRE ISLAND DRIVE
CORPUS CHRISTI, TX 78408

CORELAB

CORE LABORATORIES

LABORATORY TESTS RESULTS
08/04/95

JOB NUMBER: 952052 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

CLIENT I.D.....: #1 APPROX 500' UPSTREAM
DATE SAMPLED.....: 07/20/95
TIME SAMPLED.....: 10:15
WORK DESCRIPTION...: #1 APPROX 500' UPSTREAM OF ORIGIN

LABORATORY I.D...: 952052-0001
DATE RECEIVED....: 07/24/95
TIME RECEIVED....: 10:00
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
ICP scan for 23 elements		*1		23 element scan	07/25/95	JEM
Silver (Ag), total	<5	5	mg/L	Scan		
Aluminum (Al), total	98	5	mg/L	Scan		
Arsenic (As), total	<5	5	mg/L	Scan		
Barium (Ba), total	<5	5	mg/L	Scan		
Beryllium (Be), total	<5	5	mg/L	Scan		
Calcium (Ca), total	<100	100	mg/L	Scan		
Cadmium (Cd), total	<5	5	mg/L	Scan		
Cobalt (Co), total	<5	5	mg/L	Scan		
Chromium (Cr), total	<5	5	mg/L	Scan		
Copper (Cu), total	<5	5	mg/L	Scan		
Iron (Fe), total	75	5	mg/L	Scan		
Magnesium (Mg), total	22	5	mg/L	Scan		
Manganese (Mn), total	<5	5	mg/L	Scan		
Molybdenum (Mo), total	<5	5	mg/L	Scan		
Sodium (Na), total	<100	100	mg/L	Scan		
Nickel (Ni), total	<5	5	mg/L	Scan		
Lead (Pb), total	<5	5	mg/L	Scan		
Antimony (Sb), total	<5	5	mg/L	Scan		
Selenium (Se), total	<5	5	mg/L	Scan		
Titanium (Ti), total	<5	5	mg/L	Scan		
Thallium (Tl), total	<5	5	mg/L	Scan		
Vanadium (V), total	<5	5	mg/L	Scan		
Zinc (Zn), total	<5	5	mg/L	Scan		
ICP Metals Digest	Completed			EPA 200.7	07/24/95	EBS

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LABORATORY TESTS RESULTS
08/04/95

JOB NUMBER: 952052 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

CLIENT I.D.....: #2 APPROX 300' DOWNSTREAM
DATE SAMPLED.....: 07/20/95
TIME SAMPLED.....: 11:15
WORK DESCRIPTION...: #2 APPROX 300' DOWNSTREAM OF FENCE LINE

LABORATORY I.D...: 952052-0002
DATE RECEIVED....: 07/24/95
TIME RECEIVED....: 10:00
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
ICP scan for 23 elements		*1		23 element scan	07/25/95	JEM
Silver (Ag), total	<5	5	mg/kg	Scan		
Aluminum (Al), total	109	5	mg/kg	Scan		
Arsenic (As), total	<5	5	mg/kg	Scan		
Barium (Ba), total	<5	5	mg/kg	Scan		
Beryllium (Be), total	<5	5	mg/kg	Scan		
Calcium (Ca), total	<100	100	mg/kg	Scan		
Cadmium (Cd), total	<5	5	mg/kg	Scan		
Cobalt (Co), total	<5	5	mg/kg	Scan		
Chromium (Cr), total	<5	5	mg/kg	Scan		
Copper (Cu), total	<5	5	mg/kg	Scan		
Iron (Fe), total	76	5	mg/kg	Scan		
Magnesium (Mg), total	26	5	mg/kg	Scan		
Manganese (Mn), total	<5	5	mg/kg	Scan		
Molybdenum (Mo), total	<5	5	mg/kg	Scan		
Sodium (Na), total	<100	100	mg/kg	Scan		
Nickel (Ni), total	<5	5	mg/kg	Scan		
Lead (Pb), total	<5	5	mg/kg	Scan		
Antimony (Sb), total	<5	5	mg/kg	Scan		
Selenium (Se), total	<5	5	mg/kg	Scan		
Titanium (Ti), total	<5	5	mg/kg	Scan		
Thallium (Tl), total	<5	5	mg/kg	Scan		
Vanadium (V), total	<5	5	mg/kg	Scan		
Zinc (Zn), total	<5	5	mg/kg	Scan		
ICP Metals Digest	Completed			EPA 200.7	07/24/95	EBS

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QUALITY ASSURANCE FOOTER

Cited Methods are obtained from the following documents :

EPA 600/2-79-020, Methods for the Analysis of Water and Wastes, March 1983.
USEPA SW-846 3rd. Edition, November 1990 and July 1992 Update, Test Methods for Evaluating Solid Waste.
EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils.
Federal Register, July 1, 1992 (40 CFR Part 136).
Standard Methods for the Examination of Water and Wastewater, 18th Ed. APHA, AWWA, WPCF.

Quality control acceptance criteria are method dependent.
All data reported on sample "as received" unless noted.
Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.
NC = Not Calculated due to value at or below detection limit.
NOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.
The "TIME ANALYZED" in the QA report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "DATE ANALYZED" is the actual date of analysis.
The data in this report are within the limits of uncertainty specified in the referenced method unless otherwise indicated.

SUBCONTRACTED LABORATORY LOCATIONS

For analyses performed by a subcontract laboratory, an "*" and the designated laboratory code is indicated in the "TECHN" column of the laboratory test results report.

Core Laboratories :

Anaheim	*AN	Lake Charles	*LC
Aurora	*AU	Long Beach	*LB
Casper	*CA	Other Laboratories	*XX
Houston	*HP		

QUALITY ASSURANCE REPORT CODES

BLANKS*

MB = Method Blank
RB = Reagent Blank
SB = Storage Blank
ICB = Initial Calib. Blank
CCB = Continuing Calib. Blank

REFERENCE STANDARDS

RS = Reference Standard
CC = Continuing Calib.
LCS = Laboratory Control Std.
ICV = Initial Calib. Verification
CCV = Cont. Calib. Verification

SPIKES AND DUPLICATES

MS = Matrix Spike, BS = Blank Spike
SS = Surrogate Spike, MD = Matrix Dup.
PDS= Post Digested Spike
MSD= Matrix Spike Duplicate
PDD= Post Digested Duplicate

*In the event that several different method blanks are analyzed, the blank type will be designated by the preparation method, i.e., ZHE, TCLP, 3010, 3050, etc.

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CORPUS CHRISTI, TX 78408
(512) 289-2673

CHAIN OF CUSTODY RECORD

3146

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 7/20/95

Page 1 of 1

Purchase Order No.:	Job No.		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name [illegible]	Title
Company	Dept.	Company R. L. BAYLESS	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Sampling Location: #1 - Approx 50' [illegible]
#2 Approx 30' [illegible]

Sampler: KIM - Kevin McCord [illegible]

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED: 8015 MOD	BTEX	TPH	LAB ID
#1	7/20/95	10:15		✓	4	✓	✓	✓	7419-3146
#2	7/20/95	11:00		✓	4	✓	✓	✓	7419-3146

Relinquished by: Kevin L. McCord	Date/Time 7/20/95 10:00	Received by:	Date/Time 7/20/95 1545
Relinquished by: Kevin L. McCord	Date/Time 7/20/95 15:45	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: Kevin L. McCord (Client Signature Must Accompany Request) Date 7/20/95

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client